

Application # 10/824,900

REMARKS

Currently claims 1-29 are pending in the application. Claims 7, 10, 16, 19, and 20 stand rejected under 35 USC 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 3, 10 and 12 stand rejected under 35 USC 102(b) as being anticipated by US Patent # 4,784,246 to Edmisten. Claims 1-29 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent # 4,890,700 to Guichard in view of US Patent # 3,757,907 to Crossman et al. and further in view of Edmisten. Applicants respectfully request reconsideration and further examination of claims 1-29.

35 U.S.C. 112 Rejections

Claims 7, 10, 16, 19, and 20 stand rejected under 35 USC 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states that claims 7, 16, and 20 recite a trademark. Claim 20 does NOT recite a trademark, however claim 26 does. Applicant will assume that Examiner meant to reject claims 7, 16, and 26 for reciting a trademark. The Examiner states that it is improper to recite a trademark in the claims, however, the Examiner cites no reference for this statement, nor a reason why it is improper. MPEP 608.01 (v)I states that "If the product to which the trademark refers is set forth in such language that its identity is clear, the Examiner is authorized to permit the use of the Trademark if it is distinguished from common descriptive nouns by capitalization." In the present case, Applicant has presented the trademark Stellite® 21 as very clearly identifying a trademark. Also, the specification states "In a further preferred embodiment, the cobalt alloy is specifically Stellite® 21 (a registered trademark of the Deloro Stellite Holdings Corp)." Thus there is no possibility of confusion that Stellite® 21 is a specific type of cobalt alloy. To further clarify this, claims 7, 16, and 26 have been amended to "wherein said lug cap is comprised of a cobalt alloy, specifically

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Stellite® 21, material." Thus applicants submit that as amended claims 7, 16, and 26 are in more proper form in accordance with the Examiner's request.

Claims 10 and 19 have been rejected based on a perceived grammatical inconsistency. The Examiner states that claims 10 and 19 recite "covering slot wall portions with a lug cap." Whereas the Examiner believes "that a lug cap covers only one slot wall portion as argued and amended." Claims 10 and 19 (and the dependent claims there from) are concerned with a "method of protecting lugs of a friction brake disc." Thus, while each lug cap only covers one lug, multiple lugs may/shall be protected. To clarify this, claims 10 and 19 have been amended to "covering each of said slot wall portions with a lug cap." Applicant submits that as amended claims 10 and 19 are in more proper form in accordance with the Examiner's request.

Art Rejections

35 U.S.C. 102

Claims 1, 3, 10 and 12 stand rejected under 35 USC 102(b) as being anticipated by US Patent # 4,784,246 to Edmisten. Claim 1 and by dependency claim 3 contain the limitation "a load bearing fastening device operative to fasten the lug cap to the individual lug, such that said lug cap does not contact said slot wall portion." Claim 10 and by dependency claim 12 contain a similar limitation. The Examiner is trying to force Edmisten to meet this limitation by arbitrarily naming parts in Edmisten. The Examiner has called item 105 "a load bearing fastening device operative to fasten the lug cap [85] to the individual lug, such that said lug cap face [100] does not contact said slot wall portion." However, this directly conflicts with the language in Edmisten. Column 6, line 25 refers to "A U-shaped bracket or retainer 105." And further, column 6, lines 16-18 state "the front section 100 frictionally contacts the front wall 90." This obviously is contradictory to the limitation in applicant's claims 1, 3, 10, and 12. Applicants thus submit that these claims are not anticipated by Edmisten, and request rejection on this basis be withdrawn.

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35 U.S.C. 103 (a)

Claims 1-29 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Guichard in view of Crossman et al (Crossman) and further in view of Edmisten. To establish a *prima facie* case of obviousness, "the prior art reference (or references when combined) must teach or suggest all claim limitations" [MPEP 2142].

Claim 1 and by dependency claims 2-9 contain the limitation "a load bearing fastening device operative to fasten the lug cap to the individual lug, such that said lug cap does not contact said slot wall portion." As the Examiner states, "Guichard is silent on the location of the lug cap in relation to said slot wall portion." Further, as discussed above, Edmisten requires "the front section 100 frictionally contacts the front wall 90." As previously argued, Crossman does not show any applicable slot wall portion to relate the lug cap face location to. Therefore, none of these references teach or suggest this claim limitation. Applicants therefore respectfully request the Examiner show where any of these references disclose "a load bearing fastening device operative to fasten the lug cap to the individual lug, such that said lug cap does not contact said slot wall portion." In the absence of this, applicants submit that no *prima facie* case of obviousness has been established, and request the rejections against claims 1-9 on this ground be withdrawn.

Claim 10 and by dependency claims 11-18 contain the limitation "mounting said lug cap to said lug with a load bearing fastening device, such that said lug cap face does not contact said slot wall portion." As discussed above "Guichard is silent on the location of the lug cap in relation to said slot wall portion." Edmisten directly teaches against such location, and Crossman does not show any applicable slot wall portion to relate the lug cap face location to. Applicants therefore respectfully request the Examiner show where any of these references disclose such limitation. In the absence of this, applicants submit that no *prima facie* case of obviousness has been established, and request the rejections against claims 10-18 on this ground be withdrawn.

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Claim 20 contains the limitation "wherein said lug cap is mounted such that said lug cap face does not contact said slot wall portion." As discussed above neither Guichard, Crossman, nor Edmisten disclose such limitation. In the absence of such, applicants submit that no *prima facie* case of obviousness has been established, and request the rejections against claim 20 on this ground be withdrawn.

Further, to establish a *prima facie* case of obviousness, "first there must be some suggestion or motivation...to modify the reference" [MPEP 2142]. Claims 1-29 contain the limitation, "a lug cap having a lug cap face, wherein each said lug cap covers only one of said slot wall portions and extends circumferentially away from said slot on said slot wall top and said slot wall opposing sides." The Examiner has suggested that it would be obvious to combine the caps of Guichard and Edmisten "to locate the cap so that the torque would be transferred via the rivets instead of the slot wall portion as taught by Crossman." Crossman does not disclose a lug cap, but discloses a "key slot segment" (also referred to as 'key drive segment' and 'drive slot segment'), the important aspect, as shown by the name, being that it covers/creates the slot. It is not just a cap which covers the lug. Because of this, as the specification in Crossman goes into great detail explaining, many precautions are taken to overcome the problems this presents due to the differential in thermal expansion of the key slot segment vs. the brake material. For instance, in column 3, lines 52-56, Crossman states, that the diameters of the holes in the key slot segments, as well as the holes in the disc must be "sufficient to compensate for uneven thermal expansion between" the discs and the key slot segments. Further, in column 4, lines 8-13, Crossman states "One feature of the invention resides in providing sufficient clearance to allow for the different heat expansion of the metal and carbon elements and the assurance of proper alignment of each of the holes to achieve uniform stress loading at all of the fastening points." Crossman even goes as far as to provide an alternative embodiment to try and overcome this drawback of the thermal expansion problem, Fig 18 and 19 as described in column 6, line 56 thru column 7 line 5.

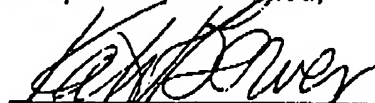
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In Figure 13 and 14 of Crossman, where the key slot segment does not cover the slot itself, Crossman points out "It is important in this embodiment of the invention, however, that each segment 58 actually extend between two adjacent notches 60 so that each and of the segment actually defines one side of each of the adjacent notches 60, rather than defining the full drive notch as in the above defined embodiments of the invention. However, the fact that the segment 58 does extend between adjacent drive notches, means that it does provide enough supporting surface with the rivets 62 that equal torque transfer is accomplished for the entire disc 50." *Thus Crossman teaches away from a lug cap which only covers a portion of the lug, and does not cover the slot. Since Crossman teaches away from a lug cap which only covers a portion of a lug, there would be no motivation to combine this reference with a reference that only covers a portion of the lug. Applicant respectfully submits that since Crossman teaches away from a lug cap which only covers a portion of a lug, there is no motivation to combine these references, and therefore no prima facie case of obviousness has been established, and request the rejections against claims 1-29 on this ground be withdrawn.*

Conclusion

Applicants respectfully submit that claims 1-29 are allowable as herein amended, request that the amendments be entered, and request that the rejections against them be withdrawn.

Respectfully submitted,



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